



5-04-04

Commissioner of Patents
P.O.Box 1450
Alexandria, VA 22313-1450

May 1, 04

Att: Alexandra Pechhold
Patent Examiner
Art Unit 3671

Re: Application #10/665/051

Ms.Pechhold:

In response to the Office Action we received from you Feb.28,04, plus the direction and advice you provided in our telephone interview, we submit the following application amendments:

- * changed TITLE from PINE STRAW CLAW to The ROOF-RAKER, which is much more descriptive of the form and function of our invention
- * added appropriate 'Not Applicable' headings to TITLE page
- * reviewed all 19 U.S.Patents covering raking implements which you provided and added pertinent references to PRIOR ART pages
- * removed references to various objects and advantages from our PRIOR ART pages and placed them under OBJECTS AND ADVANTAGES
- * added SUMMARY section
- * changed DESCRIPTION OF DRAWINGS heading to BRIEF DESCRIPTION OF DRAWINGS
- * changed DESCRIPTION heading to DETAILED DESCRIPTION OF DRAWINGS
- * under DETAILED DESCRIPTION OF DRAWINGS, added the words 'wedge-shaped configuration.' when describing the positional relationship of the tine tips of our rake-head
- * on REFERENCE TO LETTERS AND NUMERALS page, in reference #30, changed the word curved to 'convex'
- * under THEORY OF OPERATIONS heading, changed the word unique to 'novel' when describing a key design feature
- * added CONCLUSIONS to RAMIFICATIONS AND SCOPE heading
- * rearranged sequence of SPECIFICATION sections to conform to the proper order

Response to Office Action cont'd...Re:Application #10/665/051

- * without violating the 'No New Matter' rule we added other descriptive words throughout revised application in order to comply with responsibility to 'teach' and to clarify what our invention is and does, such as;
 - . curve radius (when describing tines)
 - . simultaneously (when describing how tines cover both planes of a V-shaped roof angle)
 - . deeply curved (when describing tines)
 - . integrally formed (when describing one-piece construction of our device)
 - . molecular shape-memory (when describing material used in manufacture of device)
 - . non-parallel (when describing side support walls of central housing support structure)
 - . convex (when describing shape of front wall of central housing support structure)
 - . entirely unconfined (when describing freedom of movement and flex of tines which connect individually to front wall of central housing support structure)
 - . wedge-shaped configuration (when describing shape relationship of tines)
- * CLAIMS section has been completely revised as recommended
- * regarding Claim Rejection, 35 USC 102 Re;Durkee 28,764...you mentioned that a detailed, point-by-point response was not necessary since a new set of CLAIMS was being submitted, but that a response in broad terms might be helpful; see Exhibit-A enclosed, marked Claim Rejection Response.

All of the enclosed material and revisions were prepared and submitted by co-inventors:

Joseph E. Coyne

Richard C. Coyne

Thanks again for your help and advice.



Re: Application #10/665/051 Exhibit-A

Rejection response re: Durkee 28,764

Durkee is a hand-held rake, designed to be used by a person standing in an upright position to ground surface for the purpose of ground clearance.

The Durkee rake is comprised of approximately 30 individual parts. It has a two-piece handle apparently designed for easy breakdown and storage, plus a device on the handle for lateral adjustment of tines before use of rake. While tines may be laterally adjusted, the guide support through which the tines pass and are held in position, cause the tines to maintain a rigid relationship to each other at top and bottom. The tines themselves are straight from top end to within a short distance of lower end where the tines bend at a 135 degree angle.

If one attempted to use the Durkee rake to clear a roof of pine straw and leaf debris while standing at ground level, it would not perform efficiently for the following reasons:

- 1) When extended upward to a roof from the ground the rake-head would, at best, be parallel to a roof plane with angled tips extending forward. In this position the angle bend would not allow for gathering and pulling pine straw, which is coarse and weighty, to be drawn down the plane of a roof.
- 2) As the Durkee rake is designed to be used at an upright or substantial angle to the ground, one would have to be either standing on a roof or in an elevated position above the roof for the rake to perform the intended task.
- 3) From a ladder one would have to hold the Durkee rake above ones head to gain proper angle to attempt clearing which is an exceedingly dangerous position to be in when standing on a ladder, at roof height.
- 4) The Durkee rake could not be lowered directly into a V-shaped roof angle to clear pine straw and leaf debris from both planes and apex of the angle simultaneously because the tine guide support of the rake physically prohibits this action.
- 5) Even if one stood on a roof with a Durkee rake and attempted to clear a V-shaped angle it would require many more strokes, much more time, as well as risk of injury, inherently being far less efficient.

Applicants self-adjusting roof rake-head is an integrally formed one-piece unit with flexible deeply-curved tines, several inches deep, with lower support ridges and are wholly unencumbered. The tips are configured in a wedge-shaped relationship. These design elements allow Applicants rake-head, when attached to a light-weight telescopic pole to be used on flat roof planes from

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Claim Rejection response re: Durkee 28,764 ...cont'd.

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...ground level, as well as being able to be lowered into V-shaped angles formed by two roof planes and angle apex, allowing for clearing of roof planes and apex of angle simultaneously. The deep radial curve of the tines, several inches deep, enable the roof rake to not only align easily to roof planes and angles from the ground or from a ladder, but also provide an advantageous angle of position for applying gentle pressure to the top plane of a telescopic pole handle to efficiently gather and draw pine straw and leaf debris down and off roof surfaces safely.

Applicants feel they have met 'novelty' in terms of physical differences and new use rationale.

Applicants also feel 'unobviousness' has been met for several reasons; New Principle of Operation - Unrecognized Problem - Unsuggested Modification - Solved Different Problem - and Contrarian Invention as well as several others.